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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/533,741	03/23/2000	Thomas M. D'Angelo	P-3009.2	1020

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EXAMINER

STAICOVICI, STEFAN

ART UNIT	PAPER NUMBER
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1732

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DATE MAILED: 10/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant N .

09/533,741

Applicant(s)

THOMAS M. D'ANGELO

Examiner

Stefan Staicovici

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,11,12,14,15 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,11,12,14,15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed July 19, 2002 (Paper No. 5) has been entered. Claims 1, 5, 11 and 14 have been amended. Claims 2, 7-10, 13 and 16 have been canceled. New claims 17-26 have been added. Claims 1, 3-6, 11-12, 14-15 and 17-26 are pending in the instant application.

Election/Restrictions

2. Newly submitted claims 23-26 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

- I. Claims 1, 3-6, 11-12, 14-15 and 17-22 are drawn to a molding process;
- II. Claims 23-26 are drawn to a molded product.

Therefore, the inventions Group I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product as claimed can be made by another and materially different process such as injection blow-molding a plastic hollow preform.

Since applicant has received an action on the merits for the originally presented invention of Group I, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 23-26 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Specification

3. The abstract of the disclosure is objected to because form and legal phraseology often used in patent claims, *i.e.*, "said," (see line 2) should be avoided. Correction is required. See MPEP § 608.01(b).

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4-5, 14, 17-18 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maroschak (US Patent No. 3,859,025) in view of Lupke (US Patent No. 5,429,398).

Maroschak ('025) teaches the basic claimed process for continuously molding corrugated parts including, providing an extruded soft tube of thermoplastic material and a plurality of die blocks (31a, 31b) defining mold halves (32, 33), advancing said soft extruded tube zone in a blow-molding machine (30) where said plurality of die blocks (31a, 31b) continuously form an intermediate corrugated portion (body) (intermediate convoluted segments) between non-

corrugated portions (collar) (planar end segments), advances the thus shaped tube using a speed controller (40) (synchronizing the cutter action to the movement of the shaped column) (col. 4, lines 46-53) to a cutting station (60) to separate the molded parts having non-corrugated portions (collar) (planar end segments) adjacent an intermediate corrugated portion (body) (intermediate convoluted segments) (see col. 2, line 66 through col. 4, line 10 and Figure 2).

Regarding claim 1, Maroschak ('025) does not teach forming end segments having different geometries. Lupke ('398) teaches a process for continuously forming a ribbed tube (convoluted) including a ribbed portion (10) and end segments (112, 114) having a differing geometry by using a plurality of die blocks of differing geometries (52, 52a, 52b) (see Figure 9) in a continuous blow molding machine (50) (col. 5, lines 44-50). Therefore, it would have been obvious for one of ordinary skill in the art to have provided die blocks having differing geometries as taught by Lupke ('398) to form end segments of a differing geometry in the process of Maroschak ('025), because Lupke ('398) specifically teaches that such end segments reduce the complexity of the joining process of the resulting tubes, hence improving product quality and also because both references teach similar processes and end-products.

In regard to claim 4, Maroschak ('025) teaches the existence of vertical wall (83) which is removed during the cutting phase (a surface thereon between end segment surfaces thereon) in which a speed controller (40) is adapted to synchronize the movement of the resulting molded product with the delivery rate as it emerges from the molding zone (col. 4, lines 45-50 and col. 6, lines 55-65).

Specifically regarding claims 5 and 14, Lupke ('398) teaches that the geometry of die blocks (52) (52a) and (52b) form the differing geometry (10), (112) and (114), hence forming an A-B-C pattern. Therefore, it would have been obvious for one of ordinary skill in the art to have provided die blocks having differing geometries as taught by Lupke ('398) to form a molded product having an A-B-C pattern in the process of Maroschak ('025), because Lupke ('398) specifically teaches that such end segments reduce the complexity of the joining process of the resulting tubes, hence improving product quality.

Regarding claims 17-18 and 21-22, Maroschak ('025) teaches the use of a moldable thermoplastic material (col. 3, line 1). It is submitted that a moldable material is a flexible material. Further, it is submitted that a thermoplastic material includes a thermoplastic polyolefin and a thermoplastic elastomer.

6. Claims 3, 6, 11-12, 15 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maroschak (US Patent No. 3,859,025) in view of Lupke (US Patent No. 5,429,398) and in further view of Rosenbaum (US Patent No. 4,509, 911).

Maroschak ('025) in view of Lupke ('398) teaches the basic claimed process as described above.

Regarding claim 3, Maroschak ('025) in view of Lupke ('398) does not teach that the end segments differ from part to part. Rosenbaum ('911) teaches a process for continuously forming a tube including, providing an extruded soft tube of plastic material and a plurality of die blocks (82, 84), advancing said soft extruded tube zone in a blow-molding machine (80) where said plurality of die blocks (82, 84) continuously form a tube having different geometries from part to

part (A, B, C, D) (see col. 3, lines 1-2) and, cutting said formed tube. Further, it should be noted that Rosenbaum ('911) teaches that its teachings can be incorporated in a process that forms a coupling structure as an integral part of the tubing (col. 1, lines 15-20). Therefore, it would have been obvious for one of ordinary skill in the art to have formed end segments that differ from part to part as taught by Rosenbaum ('911) in the process of Maroschak ('025) in view of Lupke ('398) because, Rosenbaum ('911) specifically teaches that it can be incorporated in a process that forms a coupling structure as an integral part of the tubing as the process of Maroschak ('025) in view of Lupke ('398) and also because, process versatility improves by reducing the complexity of the joining process of the resulting tubes to a large geometrical variety of tubes. Further, it should be noted that all references teach similar materials and processes.

In regard to claims 6, 11-12 and 15, Maroschak ('025) teaches continuously molding an extruded plastic tube using a plurality of die blocks to result in an $(A-B)_n$ pattern. Lupke ('398) teaches continuously molding an extruded plastic tube using a plurality of die blocks to result in an $(A-B-C)_n$ pattern. Rosenbaum ('911) teaches continuously molding an extruded plastic tube using a plurality of die blocks to result in an $(A-B-C-D)_n$ pattern, in which A, B, C and D have different geometries (see col. 3, lines 1-2). Therefore, it is submitted that the art of record as a whole teaches a wide variety of differing geometries that can be continuously molded from an extruded plastic tube using a plurality of die blocks and as such it is submitted that Rosenbaum ('911) teaches molding an extruded plastic tube using a plurality of die blocks to result in an $(A-B-C)_n$ and an $(A-B-C-C'-B-A)_n$ pattern. Therefore, it would have been obvious for one of ordinary skill in the art to have molded an extruded plastic tube using a plurality of die blocks to

result in an (A-B-C)_n or an (A-B-C-C'-B-A)_n pattern as taught by Rosenbaum ('911) in the process of Maroschak ('025) in view of Lupke ('398) because, Rosenbaum ('911) specifically teaches that it can be incorporated in a process that forms a coupling structure as an integral part of the tubing as the process of Maroschak ('025) in view of Lupke ('398) and also because, process versatility improves by reducing the complexity of the joining process of the resulting tubes to a large geometrical variety of tubes. Further, it should be noted that all references teach similar materials and processes.

Regarding claims 19 and 20, Maroschak ('025) teaches the use of a moldable thermoplastic material (col. 3, line 1). It is submitted that a moldable material is a flexible material. Further, it is submitted that a thermoplastic material includes a thermoplastic polyolefin and a thermoplastic elastomer.

Response to Arguments

7. Applicant's arguments filed July 19, 2002 (Paper No. 5) have been fully considered.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so

long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, as stated on pages 6-7 of the amendment filed July 19, 2002 (Paper No. 5), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Maroschak ('025) teaches a process for continuously molding corrugated parts including, providing an extruded soft tube of thermoplastic material and a plurality of die blocks (31a, 31b) defining mold halves (32, 33), advancing said soft extruded tube zone in a blow-molding machine (30) where said plurality of die blocks (31a, 31b) continuously form an intermediate corrugated portion (body) between non-corrugated portions (collar). Lupke ('398) teaches a process for continuously forming a ribbed tube (convoluted) including a ribbed portion (10) and end segments (112, 114) having a differing geometry by using a plurality of die blocks of differing geometries (52, 52a, 52b) in a continuous blow molding machine (50) (col. 5, lines 44-50). It is submitted that die block (52) creates a portion "A", die block (52a) creates a portion "B" and die block (52b) creates a portion "C" (see Figure 9). Therefore, it would have been

obvious for one of ordinary skill in the art to have provided die blocks having differing geometries as taught by Lupke ('398) to form end segments of a differing geometry in the process of Maroschak ('025), because Lupke ('398) specifically teaches that such end segments having differing geometries reduce the complexity of the joining process of the resulting tubes, hence improving product quality and also because both references teach similar processes and end-products. Hence, the motivation to combine is found in the teaching of Lupke ('398).

Applicant argues that "Rosenbaum ('911 reference)...does not teach the preparation of three different geometries in an extruded molded product" (see page 7 of the amendment filed July 19, 2002 (Paper No. 5)). However, in col. 2, line 64 through col. 3, line 2, Rosenbaum ('911) specifically teaches that in a process for continuously forming a continuous tube having a plurality of parts (A, B, C, D), said parts may be of differing geometries in order to connect tubings of different shapes and sizes. Further, it should be noted that Rosenbaum ('911) teaches that its teachings can be incorporated in a process that forms a coupling structure as an integral part of the tubing (col. 1, lines 15-20). Therefore, it would have been obvious for one of ordinary skill in the art to have formed end segments that differ from part to part as taught by Rosenbaum ('911) in the process of Maroschak ('025) in view of Lupke ('398) because, Rosenbaum ('911) specifically teaches that it can be incorporated in a process that forms a coupling structure as an integral part of the tubing as the process of Maroschak ('025) in view of Lupke ('398) and also because, process versatility improves by reducing the complexity of the joining process of the resulting tubes to a large geometrical variety of tubes. Further, it should be noted that all

references teach similar materials and processes. Hence, the motivation to combine is found in the teaching of Rosenbaum ('911).

Applicant's arguments with respect to newly added claims 23-26 have been considered but are moot in view of the constructive election by original presentation.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

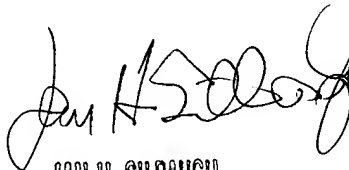
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefan Staicovici, Ph.D. whose telephone number is (703) 305-

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0396. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:30 PM and alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan H. Silbaugh, can be reached at (703) 308-3829. The fax phone number for this Group is (703) 305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.


JAN H. SILBAUGH
SUPERVISORY PATENT EXAMINER
ART UNIT ~~1732~~
10/15/02

Stefan Staicovici, PhD



October 12, 2002